



Lunchtime Lecture

21.10.2020, 12:00 (s. t.)

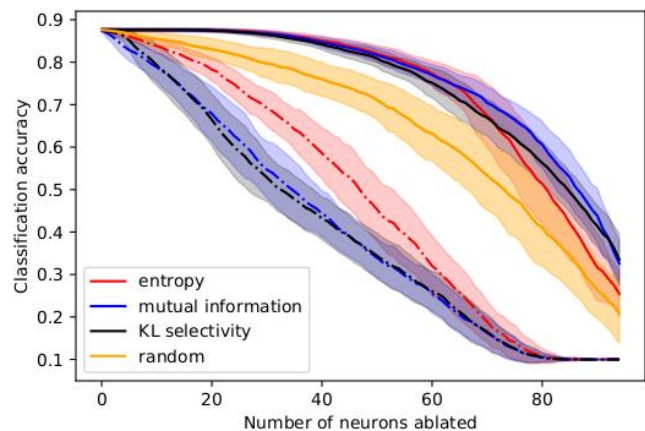
Zoom-Link: <https://zoom.us/j/97098151495?pwd=QncxcTRQUmlKcGFYR2JCMVgrQ1NUQT09>

Dr. Bernhard Geiger, Know-Center GmbH

Understanding Neural Networks with Information Theory

Abstract

Neural networks are among the most powerful and the least understood machine learning architectures. Recently, information theory has been used to open these proverbial "black boxes". This talk starts with a brief, superficial introduction to neural networks before giving an overview of recent information-theoretic approaches to understand and characterize neural networks. Finally, we will investigate how the importance of individual neurons can be quantified with information quantities.



Bernhard Geiger studied Electrical Engineering at Graz University of Technology. He is currently a Senior Researcher at Know-Center GmbH. His research interests cover information-theoretic analysis of machine learning systems, theory-assisted machine learning, and the characterization of stochastic processes.

